

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on page 25, line 5 and ending on page 25, line 20 with the following paragraph rewritten in amendment format:

Furthermore, the computer body 4 is connected with an external device. For example, the external device may be such as a displaying apparatus 7 (for example, a CRT, a liquid crystal display or the like) for displaying information of all kinds, a printer 8 for printing information of all kinds, an external output device 9 or the like. The external output device 9 is used for transmitting [[a]] bottle shape data (S105) of a container designed by any of several techniques, each of technique, which are explained later, to the devices except for the container designing system 1[[],]. The external output device may also output or outputting the data to an external storing means. The external output device 9 can be connected through a telecommunication line to a network such as a local area network (LAN), a wide area network (WAN) or Ethernet. Also, the external output device 9 can be connected to an external memory unit such as a hard disk (HD), a flexible disk, a CD-ROM or a magnet optical disk (MO). Note that, the external output device 9 can be of any type that can output [[a]] bottle shape data (S105) of an outer shape to the outside of the computer body 4.

Please replace the paragraph beginning on page 27, line 17 and ending on page 28, line 7 with the following paragraph rewritten in amendment format:

Subsequently, a bottle shape is inputted. This ~~The bottle shape input is performed by inputting a cross-sectional profile (S202). Since the structure of a round bottle includes a rotation axis 27, the cross-sectional profile may be inputted by first determining a one-sided cross-sectional profile with respect to the rotation axis 27.~~ For a round bottle, since the structure has a rotation axis 27, a practical input can be performed by determining one-side cross-sectional profile pertaining to the rotation axis 27. First, a profile of a finish portion 25a is inputted on a CAD. Conventionally, the profiles of finish portions are predetermined. For example, a profile of a finish portion may be previously designed and stored in the memory 5. In this case, the stored profile is read from the memory 5 and applied to the CAD. ~~In a conventional use, since a predetermined profile of the finish portion is taken thereon, a profile of the finish portion is designed in advance to store into the memory 5, and then the profile will be read out to apply thereon.~~ Next, the body 25b is inputted. This is done by first inputting straight lines and combining them to form a rough profile. Intersecting points of the straight lines are then modified to form a bottle-like profile. For example, the intersecting points may be rounded to form the bottle-like profile. ~~In the case of inputting the body 25b, straight lines are first inputted and combined each other to form a rough profile, and then intersecting points of those straight lines are rounded or the like, thus forming a bottle-like profile.~~ A bottom of the profile is generated by inputting ground width and push-up height parameters, which form a bottom 25c. As a bottom 25c, a ground width and a push-up height are inputted as parameters to form the bottom profile.

Please replace the paragraph beginning on page 28, line 8 and ending on page 28, line 21 with the following paragraph rewritten in amendment format:

After defining a cross-sectional profile of the bottle as shown in Fig.5, an outer shape of the bottle is defined and displayed as a solid model by means of the cross-sectional profile and the shape conditions inputted in the parametric inputting window 20, by using the solid model defining means 16 (S102, S203). The solid model is a three-dimensional representation of the outer shape of the model. The solid model is defined as a hollow container that is at least partially filled with liquid contents. The solid model is used for a three-dimensional outer shape of the bottle, defined as a substance filled up with contents. A displayed state of a bottle 30 defined by the solid model is shown in Fig.6. As shown in Fig.7, the solid model defining means 16 generates a wire frame 30a representation of the bottle 30, which does not show the surface of the solid model. Meanwhile, a wire frame 30a of the bottle 30 generated by the solid model defining means 16, which is not showing the surface of the solid model, is shown in Fig.7. However, the wire frame representation of the bottle is only shown to help illustrate the structure of the solid model. In other words, the actual solid model is a visually accurate representation of a bottle and defined as being at least partially filled with liquid contents. The representation using a wire frame model in the present embodiment, however, is used only to explain the present embodiment so the actual solid model is a real substance filled up with contents.

Please replace the paragraph beginning on page 29, line 11 and ending on page 29, line 21 with the following paragraph rewritten in amendment format:

When the secondary processing is selected (YES of S206), the secondary processing is performed (S211) and then calculation and modulation of capacity is performed (S212). In this situation, a shape verification is performed (S213), and when the bottle shape does not meet demands (NO of S213), calculation and modulation of capacity (S212) is performed again. When the bottle shape meets demands (YES of S213), ~~When it is good~~, it is judged whether the secondary processing is to be performed further or not (S206)[[,]]. When ~~when~~ the secondary processing is not selected (NO of S206), it is determined (S207) whether the computer is to output [[a]] bottle shape data (S105), which will be explained further below. ~~stated later is to be outputted to the outside of the computer or not (S207).~~

Please replace the paragraph beginning on page 31, line 3 and ending on page 31, line 8 with the following paragraph rewritten in amendment format:

Also, ~~since the shape of the finish portion is not altered when the outer shape is modulated by the capacity modulating means. Therefore, in order that a container capacity after a shape modulation has a capacity determined by the shape condition, it is unnecessary not needed to reconfirm the shape of the finish portion following a modulation of the outer shape by the capacity modulating means. This allows for an efficient design of , thus efficiently designing a container.~~

Please replace the paragraph beginning on page 31, line 9 and ending on page 32, line 1 with the following paragraph rewritten in amendment format:

After the outer shape is settled, it is determined whether the bottle shape data (S105) of the completed shape is to be outputted to the outside or not (S207). If the bottle shape data does not need to be outputted, it is not needed to output the data, the operation of the container designing system 1 ends, ~~is closed as it is~~. When the bottle shape data need to be outputted, it is needed to output the data to the outside, the bottle shape data (S105) is outputted to the outside of the computer (S106, S208), ~~will be outputted (S106, S208)~~. A means for outputting the bottle shape data (S105) may be one or more of the above mentioned devices ~~is that of the above mentioned various kinds of means~~ connected to the external output device 9. Note that, a destination of the bottle shape data (S105) may be ~~is~~ other computers 12 or manufacturing facilities of the bottle 30. In the other computers 12, the bottle shape data is utilized as the data for a computer graphics (CG), a rapid prototyping system (RP), a CAD, a computer aided engineering (CAE) or the like. That is, a type of the bottle shape data (S105) to be outputted is a drawing interchange file (DXF), a stereo lithography (STL), Japan Automobile Manufacturers Association-IGES Subset (JAMA-IS) or the like. However, other types of bottle data may be used, ~~the type is not limited to each of them~~.

Please replace the paragraph beginning on page 34, line 3 and ending on page 34, line 6 with the following paragraph rewritten in amendment format:

By subjecting a solid model to a secondary processing that comprises by using a fillet operation, it is possible to easily design the outer shape ~~that is easily produced~~, by smoothly rounding an intersecting portion of one plane with the other plane.

Please replace the paragraph beginning on page 37, line 19 and ending on page 38, line 8 with the following paragraph rewritten in amendment format:

Note that, in the container designing system 1 shown in the present embodiment, the parametric inputting means 15, the solid model defining means 16, the solid model editing means 17 and the like are formed by a program operating on a CPU 10 of the computer body 4. Additionally, the functions of the program are implemented by the CPU 10, and their functions are implemented thereby. That is to say, ~~it is certain that the substance of~~ the parametric inputting means 15, the solid model defining means 16, the solid model editing means 17 and the like are substantive portions of the program itself. Meanwhile, a program ~~may be has a property capable of being circulated through a telecommunication line such as an LAN, the Internet or the like[[],]. Additionally, the program may be encoded on a~~ in addition, there is the case where the program is dealt in a form of a computer-accessible recording medium, ~~recorded the program. The An example of the recording medium~~ may can be a flexible disk, a CD-ROM, an MO or the like.

Please replace the paragraph beginning on page 38, line 15 and ending on page 38, line 19 with the following paragraph rewritten in amendment format:

Also, since a three-dimensional outer shape of the bottle 30 is defined as a solid model at least partially filled up with contents, it is possible to perform a high-speed calculation of a container capacity, a center of gravity, a tipping angle or the like without treating the interior of the bottle 30.